

PATENT  
450101-03439

IN THE CLAIMS

1. (Currently Amended) An authenticating method for short distance radio devices, comprising data communicating means for performing radio communication over a first coverage area and authorizing means for performing authentication of said radio device over a second coverage area, comprising the steps of:

~~preparing a condition where a plurality of radio devices exist, each of said radio devices comprising data communicating means for performing short distance radio communication and authenticating means for performing authentication of said radio device; and~~

~~switching coverage area of two or more of said radio devices from the first coverage area to the second coverage area, the second coverage area being smaller than the first coverage area;~~

~~the two or more radio devices having the second coverage area being brought with in proximity to one another so that the coverage areas overlap;~~

~~performing mutual authentication between two or more radio devices by said authenticating means automatically or after confirmation by users of said radio devices when the two radio devices come closer to each other to such an extent that coverage areas of radio waves generated by the two radio devices overlap with each other.~~

2. (Currently Amended) An authenticating method for short distance radio devices according to Claim 1, wherein the step of performing the authentication by said authenticating means is performed in a state where a transmission output of said radio device is reduced to shorten a communication distance of said radio device.

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3. (Currently Amended) An authenticating method for ~~short distance~~ radio devices according to Claim 2, wherein the transmission output is reduced only in a particular one of said radio devices.

4. (Currently Amended) An authenticating method for ~~short distance~~ radio devices according to Claim 2, wherein the transmission output is reduced upon turning-on of an authentication button provided on said radio device.

5. (Currently Amended) An authenticating method for ~~short distance~~ radio devices according to Claim 1, wherein the step of performing the authentication by said authenticating means is performed in a state where reception sensitivity of said radio device is reduced to shorten a communication distance of said radio device.

6. (Currently Amended) An authenticating method for ~~short distance~~ radio devices according to Claim 5, wherein the reception sensitivity is reduced only in a particular one of said radio devices.

7. (Currently Amended) An authenticating method for ~~short distance~~ radio devices according to Claim 5, wherein the reception sensitivity is reduced upon turning-on of an authentication button provided on said radio device.

8. (Currently Amended) An authenticating method for ~~short distance~~ radio devices according to Claim 1, wherein said two or more radio device is a portable device performing mutual authentication are portable devices.

9. (Currently Amended) A ~~short distance~~ radio device comprising data communicating means for performing ~~short distance~~ radio communication over a first coverage area and authenticating means for performing authentication over a second coverage area of said radio device, and means for switching the coverage area of said

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radio device from said first coverage area to said second coverage area, said second coverage area being smaller than said first coverage area;

said authenticating means of said radio device performing, in a condition where a plurality of radio devices exist, mutual authentication between two or more radio devices automatically or after confirmation by users of said radio devices when the two or more radio devices are brought in proximity to one another so that the second coverage areas overlap some closer to each other to such an extent that coverage areas of radio waves generated by the radio devices overlap with each other.

10. (Currently Amended) A short distance radio device according to Claim 9, wherein said authenticating means performs the authentication in a state where a transmission output of said radio device is reduced to shorten a communication distance of said radio device.

11. (Currently Amended) A short distance radio device according to Claim 10, wherein the transmission output is reduced only in a particular one of said radio devices.

12. (Currently Amended) A short distance radio device according to Claim 10, wherein the transmission output is reduced upon turning-on of an authentication button provided on said radio device.

13. (Currently Amended) A short distance radio device according to Claim 9, wherein said authenticating means performs the authentication in a state where reception sensitivity of said radio device is reduced to shorten a communication distance of said radio device.

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14. (Currently Amended) A ~~short distance~~ radio device according to Claim 13, wherein the reception sensitivity is reduced only in a particular one of said radio devices.

15. (Currently Amended) A ~~short distance~~ radio device according to Claim 13, wherein the reception sensitivity is reduced upon turning-on of an authentication button provided on said radio device.

16. (Currently Amended) A ~~short distance~~ radio device according to Claim 9, wherein said radio device is a portable device.

17. (New) An authenticating method for radio devices, comprising the steps of: providing a plurality of mobile radio devices, each of said plurality of mobile radio devices comprising data communicating means for performing radio communication and authenticating means for performing authentication of said radio device; and

performing mutual authentication between two or more radio devices by said authenticating means automatically or after initiation by users of said two or more radio devices when the two or more radio devices come sufficiently closer to each other that coverage areas of radio waves generated by the two or more radio devices overlap.

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